UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/488,572	01/21/2000	Ramesh Nagarajan	104422	4616

7590 11/03/2003	EXAMINER
Oliff & Berridge PLC	WU, JINGGE
P O Box 19928	

ART UNIT	PAPER NUMBER
2623	

Oliff & Berridge PLC
P O Box 19928
Alexandria, VA 22320

DATE MAILED: 11/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Paper No. 10

Application Number: 09/488,572
Filing Date: January 21, 2000
Appellant(s): NAGARAJAN ET AL.

MAILED

NOV 0 3 2003

Technology Center 2600

Jon F. Hadidi
<u>For Appellant</u>

EXAMINER'S ANSWER

This is in response to the appeal brief filed on August 25, 2003

(1)   *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2)   *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly

affect or be directly affected by or have a bearing on the decision in the pending appeal

is contained in the brief.

(3)   *Status of Claims*

The statement of the status of the claims contained in the brief is correct.

(4)   *Status of Amendments after final rejection*

The appellant's statement of the status of amendments after final rejection

contained in the brief is correct.

(5)   *Interview with Examiner*

The appellant's statement of the interview summary after final rejection contained

in the brief is correct.

(6)   *Summary of Invention*

The summary of invention contained in the brief is correct.

(7)   *Issues*

The appellant's statement of the issues in the brief is correct.

(8)   *Grouping of Claims*

The rejection of claims 1-5 stand or fall together.

(9)   Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief .

(10)   Prior Art of Record

5,339,172   Robinson   8-1994

(11)   Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1   Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by US
5339172 to Robinson.

As to claim 1, Robinson discloses a method for segmenting an image
comprising:

determining a selected segmentation mode to be used when segmenting the
image (Fig. 4 and 5, col. 7, line 7-col. 9 line 65, S184 is the step to determine);

determining if selected segmentation mode is an automatic mode (Fig. 4 and 5,
col. 7, line 7-col. 8 line 15, S184 is the step to determine, and this mode is inherently an
automatic mode);

inputting a new value for each at least automatic segmentation parameter to be
changed, if the user wishes to change at least one parameter of the selected mode (Fig.
4-5, col. 7 line 65-col. 9 line 65, S186 and S188-I, I= 1-m are the input step using the
dialog screen of Fig. 4); and

segmenting the image using the automatic parameter values, including the new

segmentation parameter values (Fig. 4-5, col. 8-col. 10, line 15).

As to claims 2 and 5, Robinson further discloses alternating at least one other

automatic segmentation parameter   value each time the new parameter is selected(

col. 8 line 5-col. 9 line 66, S200).

As to claims 3-4, Robinson further discloses storing the at least one new

segmentation parameter value (col. 9 lines 9-66, note that storing the values is inherent

because the computer must receive and store the input value, then identify it as which ·

variables or options or modes are selected by the user).

(12)   Response to Argument

(A) The following discussion relates to the rejection of claims 1-5 under 35 U.S.C.

102(b) as being anticipated by US 5339172 to Robinson.

1. Appellants' argument---- Appellant argues that "Once any given **segmentation**

mode is related, the particular look-up table associated with the mode is variably

selected, and the user has no ability to either vary the look-up table that is related as a

result of the **segmentation mode** being selected or vary the specific values stored in

the selected look-up table". (page 11, paragraph 1, emphasis by the Examiner).

Examiner's response ---- The Examiner disagrees with Appellant's

misunderstanding on this part of Robinson. First, Robinson does not mention once a

"segmentation mode" is related, then a particular LUT is related as the result of

selecting a "segmentation mode". What Robinson described in the Fig. 5 is that

"operator selects the segmentation image quality mode" (s 184) (note that this is the

step of selecting segmentation mode by the user), then "present N(i) image quality

options" (S186) and "choose N(m)?) (S188) (note that this is the step of inputting

parameters N(i) by the user and **Appellant misunderstood and mischaracterized**

this step is select a segmentation mode), and further then "appropriate parameters

are down loaded to segmentor for N(i)" (S190) and finally, if answer to "print quality

optimal?" (S198) is no, "select a **new value** of N(i)" (S200, emphasis by the Examiner)

(note that user will choose new parameters N(i) not parameters in LUT). From Fig. 5,

and the description of Robinson in col. 9 lines 25-44, it is clear that only after a user

chooses parameters or options or modes (not segmentation mode), then parameters in

LUT will be loaded. Appellant's argument shows his misunderstanding of Robinson and

thus, one reason results in this appeal brief.

Furthermore, the parameters in the instant case are the "**parameters for each**

segment type" (Fig. 5, S160, page 11, specification) or "**the parameters of segment**

main class" input in the automatic segmentation mode (Fig. 6, S360, page 12,

specification). Appellant also expressly mentions in this brief that "The user thus

provides at least on new parameter value for one or more of the parameters relating to

one or more of the main classes." (page 3, paragraph 3). Since the parameters defined

in the claims and the specification in the instant case are not the parameters loaded the

LUT, Appellant's argument implies if the user can not change the parameters of the

LUTs described in Robinson, then Robinson can not be used as a 102 reference is

illogical because Appellant's claim on **parameters** can not be constructed the way

Appellant has argued, and neither in Robinson nor Appellant's invention can change

parameters in LUT after the LUT is selected corresponding to the selection of options

or modes or segment subcalsses. Appellant is shooting the wrong bird when he argues

the parameters of LUT can not be changed.

Finally, contrast to the Appellant's misunderstanding, Robinson shows a user

interface screen (Fig. 4), representing "a segmentation dialog", to allow user to input

different "options or modes" **as parameters** for the segmentation. After a user select the

segmentation mode (Fig. 5, S184), the user can select options or modes presented in

the dialog screen as parameters for the segmentation (col. 7 line 64-col. 9 line 44). The

disclosure of Robinson can be clearly read on the every elements of the claims 1-5.

2. Appellants' argument---- Appellant also argues that 1) "an operator selects a

start icon (step 184), and is presented with various options (step 186). The various

options or **segmentation modes** are designated by the variable N(i). ... Steps 188-1,

188-2... 188-M, illustrate that the user can choose a_segmentation mode from one of

m modes. Upon choosing one of the segmentation modes (step 190), appropriate

parameters for obtaining the mapping function, which are predetermined and are fixed,

and which are stored in one of m look-up table for the **selected segmentation mode**,

are downloaded to segmentation control 180 of Figure 1. The user had no discretion on

this process." (page 10, paragraph 3, emphasis added by the Examiner); 2) "... if print

quality is acceptable (step 198), then the process is ended; otherwise, a new

segmentation mode is chosen (step 200) and the process is repeated." (page 11,

paragraph 2, emphasis added by the Examiner); and 3) "Robinson clearly states that changing the variable N(i) changes only the **selected segmentation mode**, and does not result in any of the predetermined parameter values in any of the m look-up tables corresponding to the selected mode being changed in any way from the predetermined values. ... the print quality determining step 198 does not use or need **segmentation** parameter values in any of the m look-up tables, at step 198 simply queries the user to determine if the print quality is acceptable, so that, if it is not, a different **segmentation mode**, not any different values for parameters of that segmentation mode, can be selected". ... "changing **segmentation modes** is not equivalent to changing a parameter within a mode once the mode is selected" (page 11, paragraph 3, emphasis added by the Examiner).

Examiner's response ---- The Examiner does not agree with Appellant. First, comparing highlight word "**segmentation mode (s)**" quoted in above with the specification of Robinson, Appellant apparently and arbitrarily **adds** word "segmentation" before the mode(s) and mischaracterizes Robinson's "options or modes" as segmentation mode(s) as the automatic segmentation mode in the claims. What Robinson describes is "the various options or modes" in step 186 and 188 (col. 9 lines 28-29), not segmentation mode. Appellant's argument further shows his mischaracterization of Robinson, another reason results in this appeal brief. What "the various options or modes" presented in the segmentation dialog screen (Fig. 4, Robinson) are the parameters for the segmentation mode selected by the operator in step 184 (Fig. 5, note that Robinson expressly mention "segmentation quality mode"

here and only "options", "modes" or "variables" for the steps 188 (i) i = 1-m), and are

not the "segmentation mode" defined in the claims. Again, Appellant uses his

misunderstanding and mischaracterizing of Robinson to form his wrong argument.

Furthermore, the Examiner recognizes for making a prima facie case, a person of

ordinary skill in the art would have recognized the interchangeability of the element

shown in the prior art for the corresponding elements in the specification. *Caterpiller Inc*

v. Deere & Co., 224 F.3d 1374, 56 USPQ2d 1305 (Fed. Cir. 2000). Robinson discloses

the elements are either same or substantially similar with corresponding elements in the

specification. Robinson discloses an automatic segmentation mode (Fig. 5, 184,

comparing to Fig. 5 S150, specification, note that the segmentation mode in Robinson is

an automatic segmentation mode because the computer will automatically perform the

steps of Fig. 5) can be chosen by the user, then user can input segmentation

parameters by selecting options or modes (parameters) through the dialog screen (Fig.

4, comparing to Fig. 3, specification). Those options or modes in Robinson are

substantially similar with the options or modes showed in the Fig. 3 of the instant case.

For example, sharpness and screen in Fig. 4 of Robinson, is substantially same as to

sharpness level and screen modulation in fig. 3 of the instant case. A person of

ordinary skill in the art would have recognized that the four segment classes of the

instant case (Fig. 3) are the same as the four image types in Robinson, e.g., line/text

(these two types are the same), high frequency (fine halftone is another name to

describe the high frequency halftone), low frequency (coarse halftone is another

interchangeable way to describe the low frequency halftone), or continuous tone

(photo/contone is also another interchangeable way to describe the continuous tone).

Moreover, the Examiner also recognizes for making a prima facie case, that the

prior art elements performs the identical function specified in the claim in substantially

the same way, and produces substantial the same results as corresponding elements

disclosed in the specification. *Kemco Sales Inc. v. Control Papers Co.*, 208 F.3d 1352,

54 USPQ2d 1308 (Fed. Cir. 2000). Robinson's method is a very similar with that of the

instant invention and the ways to input parameters for the segmentation are also

similar. Robinson teaches selected icons "mixed" or "full" or "screen" etc (col. 8 line1-

col 9, line 44). It can also be seen in Fig. 4, a digit scale can be set for inputting

numbers (one having ordinary skill in the art of image processing can infer the scale

could be used for setting up either sharpness level or screen modulation described in

Fig. 3 of the instant case). The results of the functions in both Robinson and the instant

case are substantially same. They are all choosing the segmentation mode, inputting

parameters based on the types of the input image, and segmenting the image based on

the input. In addition, Robinson further discloses a custom mode for input by

customarily setting the mapping function used for segmentation, i.e., different

combination of selecting LUTs based on the image types (col. 8 line 5-col. 9 line 45).

Finally, Robinson clearly and expressly teaches the all limitations in the claims 1-

5, using same or very similar segmentation parameters and/or ways to inputting the

parameters with those of the instant case. The prama facie case has been successfully

established, Therefore, Appellant's argument is baseless and incorrect.

3. Appellants' argument --- Appellant further argues that it is "entirely unfounded,

unsupported, and is directly contrary to the teaching of Robinson" for Examiner's

assertion "a user can change parameters in look-up tables by choosing one look-up

table from a plurality of look-up tables" (page 11 paragraph 4).

Examiner's response --- The Examiner agree with Appellant on this part.

However, this argument can not help the Appellant because the Examiner clearly

explain his interpretation on Robinson in the interview after Final Action. First, in the

interview, the Examiner explain that user can change "options or submodes" for the

selected mode. Second, the interview summary after final is more clearly illustrated that

the Examiner's reading on Robinson is 1) the "options or modes" in Fig. 5 are not the

"segmentation mode" claimed in the claim language (Examiner used "submodes" to

distinguish them); and 2) user can change "options or submodes" for the selected mode

(See, interview summary, dated 1/21/2000). Finally, the Examiner believes that

Appellant's argument is not on the point for the current position of the Examiner, which

has been explained to the Appellant in the interview after final action.

4. Appellants' argument --- Appellant still further argues that Robinson fails in

any way to describe, teach, or suggest allowing user to input, altering, at least one new

automatic segmentation parameter value is input, at least one other automatic

segmentation parameter values as recited in claim 2; storing the at least one new

automatic segmentation parameter values and the at least on other automatic

segmentation parameter value as recited in claims 3 and 4; and storing the at least one

new automatic segmentation parameter value and alter at least one other automatic

segmentation value each time the automatic segmentation mode is selected. (page 12, paragraph 3).
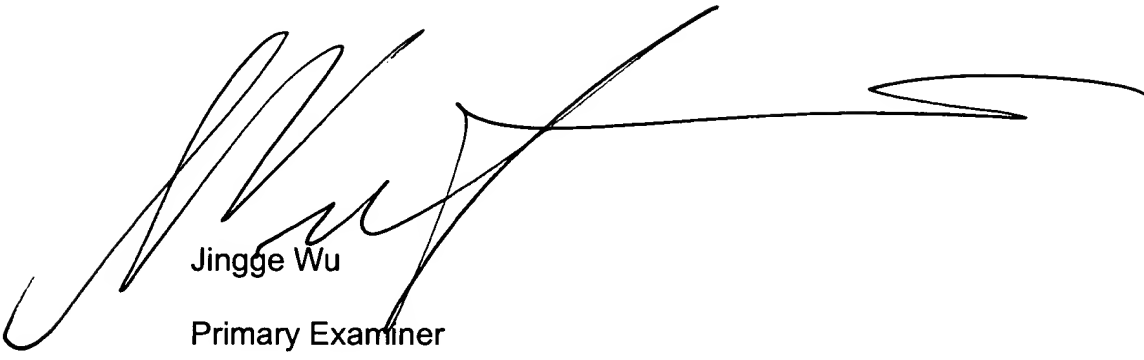
Examiner's response --- The Examiner does not agree with Appellant. Here, Appellant does not have any details to support his assertion and he can not find any. In fact, Robinson teaches altering at least at least one other automatic segmentation parameter values by "selecting a new value of N(i)" in step 200 (Fig. 5, col. 9, lines 25-44) as recited in claim 2; storing the at least one new automatic segmentation parameter values and the at least on other automatic segmentation parameter value as new controls and new input from the segmentation dialog (col. 7, line 64-col. 9 line 44, note that storing the values is inherent because the computer must receive and store the input value, then identify it as which variables or options or modes are selected by the user, and finally segmenting the image as the user designated) as recited in claims 3 and 4; and storing the at least one new automatic segmentation parameter value (e.g. screen) and alter at least one other automatic segmentation value each time the automatic segmentation mode is selected (Fig. 5, col. 9 lines 25-44) as recited in claim 5. Thus, Appellant's argument is baseless and incorrect.

For the above reasons, it is believed that a prima facie case has been fully established and the rejections should be sustained.

Respectfully submitted

Jingge Wu
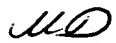
Primary Examiner

October 28, 2003

Appeal Conferees:

Amelia Au

Mehrdad Dastouri